

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO 2004/000093

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: E21B 29/04, E21B 31/00  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3327784 A (G.H. PARDUE), 27 June 1967 (27.06.1967) --	1-4
A	EP 0898046 A2 (HALLIBURTON ENERGY SERVICE, INC.), 24 February 1999 (24.02.1999) --	1-4
A	EP 1197631 A2 (SCHLUMBERGER TECHNOLOGY B.V. ET AL), 17 April 2002 (17.04.2002) --	1-4
A	EP 0552087 A2 (SCHLUMBERGER LIMITED ET AL), 21 July 1993 (21.07.1993) -- -----	1-4

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance  
"E" earlier application or patent but published on or after the international filing date  
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
"O" document referring to an oral disclosure, use, exhibition or other means  
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

28 July 2004

Date of mailing of the international search report

30-07-2004

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

30/04/2004

International application No.

PCT/NO 2004/000093

US	3327784	A	27/06/1967	NONE		
EP	0898046	A2	24/02/1999	NO	983852 A	23/02/1999
				US	6032733 A	07/03/2000
EP	1197631	A2	17/04/2002	AU	763330 B	17/07/2003
				AU	5800501 A	02/05/2002
				CA	2358663 A	11/04/2002
				CN	1366126 A	28/08/2002
				EG	22948 A	13/01/2002
				NO	20014929 A	12/04/2002
				US	6431269 B	13/08/2002
EP	0552087	A2	21/07/1993	DE	69310219 D	00/00/0000
				ID	894 B	05/09/1996
				NO	305041 B	22/03/1999
				NO	930008 A	15/07/1993
				US	5278550 A	11/01/1994